

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In Re Application of:

Ronald E. Gillingham

Serial No. 10/707,484 Group Art Unit: 1771

Filed: 12/17/2003 Examiner: Jeremy R. Pierce

For: TWIN SHEET THERMOPLASTIC HEADLINER WITH INTEGRAL
FEATURES FOR HEAD IMPACT COMPLIANCE

Attorney Docket No. 81094960

CERTIFICATE OF MAILING/TRANSMISSION (37 C.F.R. § 1.8(a))

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Donna Kraft
Signature

Date: 8-21-2006

Donna Kraft

**RESPONSE TO NOTICE OF NON-COMPLIANT APPEAL BRIEF AND CORRECTED
APPEAL BRIEF**

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Sir:

This corrected Appeal Brief is submitted in response to the Notice of Non-Complaint Appeal Brief dated August 4, 2006.

I. Real Party in Interest

The real party in interest in this matter is Ford Global Technologies, LLC, which is a wholly owned subsidiary of Ford Motor Company, both of Dearborn, Michigan (hereinafter "Ford").

II. Related Appeals and Interferences

There are no other known appeals or interferences which will directly affect or be directly affected by or have bearing on the Board's decision in the pending appeal.

III. Status of the Claims

Claims 1-12 and 14-21 are pending in the application. Claims 1-10 are withdrawn, and Claim 13 has been cancelled. Claims 11, 12 and 14-21 stand rejected in the Final Office Action.

IV. Status of Amendments

No Amendments were filed after the final rejection.

V. Summary of Claimed Subject Matter

Independent Claim 12 is best understood with reference to paragraphs 32, 33, and 39 of Appellants' specification and with further reference Appellants' Figures 2-5.

As set forth in paragraph 32, headliner 20 includes top layer 22 and a lower, or bottom, layer 24. In the preferred embodiment of Figure 2, top layer 22 may be made of an energy absorbing sheet, such as thermoplastic, and bottom layer 24 may be made of a Class-A, or finished, sheet which has carpet or cloth attached. Each of layers 22 and 24 has a number of surface contours. The layers are substantially joined together into a finished headliner.

As further described in paragraph 33 in connection with Figures 2-5, convex and concave members 26 and 28 are formed in top layer 22 for absorption of impact energy. These members may be shaped as waffles, cones, pyramids, as well as a variety of other claimed shapes.

According to Claim 11, which depends from Claim 1, a headliner includes top and bottom layers made by vacuum forming thermoplastic sheets. The layers have several surface contours and are joined together so as to include at least one cavity defined by the layers themselves.

According to Claim 14, which depends from Claim 12, the surface contours of the headliner's top layer define energy absorptive convex and concave members.

According to Claim 15, which depends from Claim 12, the surface contours of the headliner's top layer define energy absorptive convex and concave members.

According to Claim 16, which depends from Claim 12, other components may be injected between the headliner's top and bottom layers to modify the headliner's performance.

According to Claims 17 and 18, which depend from Claims 14 and 15 respectively, the convex and concave members formed in the top and bottom layers of Appellants' headliner are in the shape of at least one hexagon, circle, triangle, and square solid.

According to Claims 19 and 20, which depend from Claims 14 and 15, respectively, the convex and concave members formed in the top and bottom layers of Appellants' headliner are in the shape of at least one waffle, cone, conical section, pyramid, truncated pyramid, rectangular solid, rectangle, cube sphere, spheroid, ellipse, truncated ellipse, rhombohedral solid, and truncated rhombohedral solid.

According to Claim 21, which depends from Claim 12, Appellants' headliner may be fabricated from thermoplastic material.

VI. Grounds of Rejection to be Reviewed on Appeal

Are Claims 12 and 14-21 and properly rejected under 35 U.S.C. 102(b) as being anticipated by *Carroll et al. (US 2003/0017805)*?

Are Claims 12 and 14-21 and properly rejected under 35 U.S.C. 102(b) as being anticipated by *Wandyez (U.S. Patent No. 6,086,145)*?

Is Claim 11 properly rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as being obvious over *Carroll et al.*?

Is Claim 11 properly rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as being obvious over *Wandyez*?

VII. Argument

Claims 12 and 14-21 are not anticipated by *Carroll et al. (2002/0017805)*.

The Examiner states that *Carroll et al.* discloses an energy absorbing assembly including an upper layer having contours which may be combined with a lower layer having contours so that a cavity is formed between the two layers. The Examiner also asserts that *Carroll et al.* discloses that *Carroll's* material meets head inquiry criteria, citing paragraph 68 of *Carroll et al.* With respect to claim 16, the Examiner asserts that *Carroll et al.* teaches other components that may be included in a composite including delta structures, acoustic dampeners, and pellets or beads. With respect to claims 17-20, the Examiner asserts that *Carroll's* recesses are circular in nature (Figure 11) and that *Carroll et al.* teaches that other shapes may be used (*Carroll et al.* paragraph 43). With respect to claim 21, the Examiner states that *Carroll et al.* uses a thermoplastic sheet, (*Carroll et al.* paragraph 51).

As set forth in Appellants' claims, a headliner for a vehicle includes at least one top layer including a plurality of surface contours, and at least one bottom layer including a plurality of

surface contours, with the top and bottom layers being substantially joined together to form an integral headliner including at least one area between the top and bottom layers defining a cavity. The top layer is independent from the bottom layer prior to being joined to the bottom layer. As shown in the various figures, bottom layer 24 is smooth and presents a finished appearance.

To reiterate, Appellants are claiming a headliner. *Carroll et al.*, on the other hand does not disclose a headliner. Rather, *Carroll* discloses an unfinished panel, which, according to *Carroll's* Claim 10, is intended to be attached to any, and used in combination with a vast array of other structures, to form a similarly vast array of other finished goods, one of which may include a headliner. Accordingly, Appellants defy the Examiner to show any vehicle having a headliner with the appearance of *Carroll's* device. Rather, *Carroll et al.* is devoted not to a headliner, but to a structure which could be buried, for example, within the core of a headliner. At paragraph 33, *Carroll et al.* avers that "the invention embraces a sheet of material with recesses formed in it". Although it is true that *Carroll et al.* discloses an energy absorbing assembly, this alone does not mean that *Carroll et al.* discloses a headliner for a vehicle. A headliner, as noted in Appellants' specification at paragraph 3, includes a device mounted inside the passenger compartment of a vehicle for providing an aesthetic covering for the roof's sheet metal and/or framework upon which the headliner is to be mounted. *Carroll et al.* shows something that could be used within a headliner but does not disclose a finished headliner, nor does *Carroll et al.* disclose any completed structure for a headliner.

The Examiner cites *Carroll's* Claim 10 for the proposition that *Carroll* discloses a headliner. Appellants' respectfully submit that the Examiner's citation is inapposite because *Carroll's* Claim 10 merely recites that *Carroll's* energy absorbing assembly may be attached to any one of at least 18 different "support surfaces" including, but not limited to an instrument

panel, a dome light, a bumper beam, a seat, a bumper mount, and yes, even a headliner. Accordingly, the structure proffered by the Examiner cannot itself be a headliner.

To say that *Carroll's* structure is a “headliner” is akin to asserting that a wheel spider having a particular construction is a completed wheel. The use of *Carroll et al.* as a reference in this case is simply inapposite and, as a result, each of Claims 12 and 14-21 should be passed to issue over the Examiner’s rejection.

Claims 12 and 14-21 are not anticipated by *Wandyez* (U.S. 6,086,145).

The Examiner states that *Wandyez* discloses a headliner with cavities formed between the upper substrate and lower substrate, with both having concave and convex members.

As set forth in Appellants’ claims, Appellants’ headliner includes top and bottom layers which are independent prior to being joined together. In contrast, *Wandyez* teaches a headliner having cavities which are formed by blow molding a plastic parison using a method commonly employed for forming plastic bottles. In other words, there is no upper layer and separate lower layer with *Wandyez*, because *Wandyez*’s passages are formed by blow molding a plastic parison in a manner not unlike that used to form a plastic bottle. As a result, *Wandyez* cannot form a colorable basis for rejection of Appellants’ claims pursuant to 35 U.S.C. § 102(b). Furthermore, unlike Appellants, *Wandyez* does not form a headliner having a finished inner lower surface in a single step.

Claim 11 is neither anticipated by, or, as an alternative, obvious under 35 U.S.C. § 103, over *Carroll et al.*

Claim 11 recites a headliner made according to the method of Claim 1, including top and bottom layers with a plurality of surface contours and with the top and bottom layers substantially joined together and including at least one area between defining at least one cavity.

As noted above, *Carroll et al.* does not disclose or teach a headliner for a vehicle. Moreover, *Carroll et al.* does not teach a structure which is vacuum formed and has independent top and bottom layers joined together to form an integral headliner. Moreover, the Examiner has not adduced any evidence to support a conclusion of obviousness. For this reason, as well as for the previously cited reasons, *Carroll et al.* cannot comprise a colorable basis for the rejection of Applicants' Claim 11.

Claim 11 is neither anticipated by, or, as an alternative, obvious under 35 U.S.C. § 103(a), over Wandyez.

As noted above, *Wandyez* does not disclose a headliner having independent top and bottom layers. More precisely, *Wandyez* discloses a blow molded parison forming headliner wiring channels. *Wandyez* neither teaches nor suggests Applicants' claimed invention, because *Wandyez* does not teach upper and lower layers which are separate and independent and which are bonded together. Moreover, as with the prior rejection, the Examiner has not adduced any evidence to support a conclusion of obviousness. For this reason, as well as for the previously cited reasons, Claim 11 is patentable over *Wandyez*.

VIII. Claims Appendix

A copy of each of the claims involved in this appeal is attached as a Claims Appendix.

IX. Evidence Appendix

None.

X. Related Proceedings

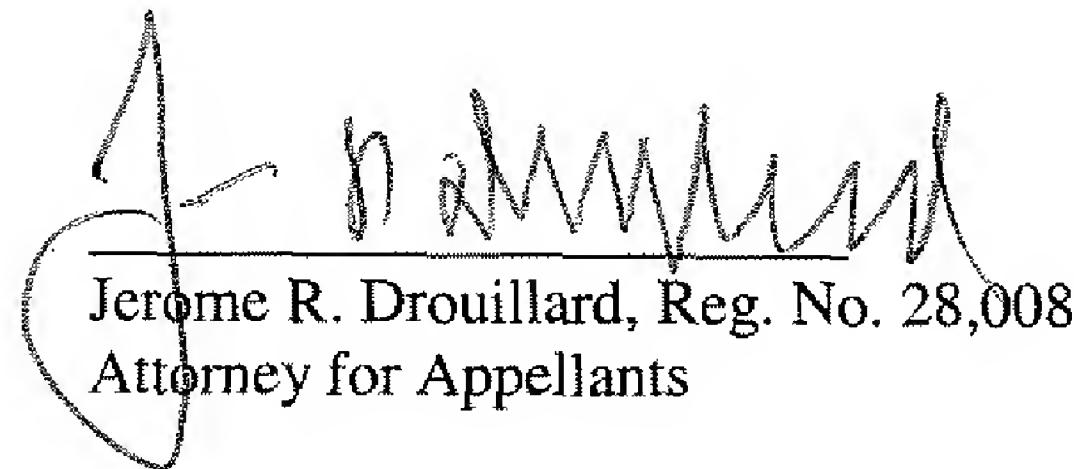
None.

XI. Conclusion

For the foregoing reasons, Appellants respectfully request that the Board direct the Examiner in charge of this case to withdraw the rejection.

Please charge any fees required in the filing of this appeal to deposit account 06-1510.

Respectfully submitted,



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CLAIMS APPENDIX

1. A method of manufacturing a headliner for a vehicle, said method comprising the steps of:

providing vacuum forming equipment including upper and lower mold halves;

providing thermoplastic material including at least one top and at least one independent bottom layer;

placing said top and bottom layers into the vacuum forming equipment adjacent forming surfaces of the upper and lower mold halves;

substantially sealing at least one of the upper and lower mold halves from atmosphere;

joining said top and bottom layers together to form an integral headliner; and

applying vacuum to at least one of said top and bottom layers at predetermined locations so as to form at least one cavity between said top and bottom layers.

2. The method according to claim 1, wherein said steps of providing vacuum forming equipment, providing thermoplastic material, placing, sealing, joining and applying are carried out to thereby provide a head impact compliant headliner for motor vehicles without attachment of additional components on said headliner.

3. The method according to claim 1, wherein said step of applying provides surface contours on said top layer defining convex and concave members for absorption of impact energy.

4. The method according to claim 1, wherein said step of applying provides surface contours on said bottom layer defining convex and concave members for absorption of impact energy.

5. The method according to claim 1, further comprising the step of:

injecting other components between said top and bottom layers for increasing structural or function vehicle performance.

6. The method according to claim 3, wherein at least one of said convex and concave members being in shape of at least one hexagon, circle, triangle and square solid.

7. The method according to claim 4, wherein at least one of said convex and

concave members being in shape of at least one hexagon, circle, triangle and square solid.

8. The method according to claim 3, wherein at least one of said convex and concave members being in shape of at least one waffle, cone, conical section, pyramid, truncated pyramid, rectangular solid, rectangle, cube, sphere, spheroid, ellipse, truncated ellipse, rhombohedral solid, and truncated rhombohedral solid.

9. The method according to claim 4, wherein at least one of said convex and concave members being in shape of at least one waffle, cone, conical section, pyramid, truncated pyramid, rectangular solid, rectangle, cube, sphere, spheroid, ellipse, truncated ellipse, rhombohedral solid, and truncated rhombohedral solid.

10. The method according to claim 1, wherein said headliner is made of thermoplastic.

11. A headliner for a vehicle made by the method of claim 1, said top and bottom layers including a plurality of surface contours, and said top and bottom layers substantially joined together and including at least one area therebetween defining said at least one cavity.

12. A headliner for a vehicle, said headliner comprising:
at least one top layer including a plurality of surface contours;
at least one bottom layer including a plurality of surface contours; and
said top and bottom layers being substantially joined together to form an integral headliner including at least one area between inner surfaces of said top and bottom layers defining a cavity, therein said top layer is independent from said bottom layer prior to being joined to said bottom layer.

14. The headliner according to claim 12, wherein said surface contours of said top layer define convex and concave members for absorption of impact energy.

15. The headliner according to claim 12, wherein said surface contours of said bottom layer define convex and concave members of absorption of impact energy.

16. The headliner according to claim 12, further comprising:
other components injected between said top and bottom layers for increasing structural or function vehicle performance.

17. The headliner according to claim 14, wherein at least one of said convex and concave members being in shape of at least one hexagon, circle, triangle and square solid.

18. The headliner according to claim 15, wherein at least one of said convex and concave members being in shape of at least one hexagon, circle, triangle, and square solid.

19. The headliner according to claim 14, wherein at least one of said convex and concave members being in shape of at least one waffle, cone, conical section, pyramid, truncated pyramid, rectangular solid, rectangle, cube, sphere, spheroid, ellipse, truncated ellipse, rhombohedral solid and truncated rhombohedral solid.

20. The headliner according to claim 15, wherein at least one of said convex and concave members being in shape of at least one waffle, cone, conical section, pyramid, truncated pyramid, rectangular solid, rectangle, cube, sphere, spheroid, ellipse, truncated ellipse, rhombohedral solid, and truncated rhombohedral solid.

21. The headliner according to claim 12, wherein said headliner is made of thermoplastic.

EVIDENCE APPENDIX

None.

RELATED PROCEEDINGS

None.